

A NEW CALIFORNIA PLUME-MOTH

(LEPIDOPTERA, ALUCITIDAE)

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PLATYPTILIA CRATAEA, n. sp.

♂. Expanse 21 mm.

HEAD: Dull fuscous: frontal tuft slight, not over one-half breadth of eye, acute.

ANTENNA: Shortly ciliated (about $\frac{1}{2}$), scape short, stout, flagellar segments dilated at tips, pale fuscous, broadly banded blackish.

LABIAL PALPUS: Short, subascending, apex of second segment level with point of frontal cone; second segment as long as breadth of eye, expanded with rather rough scales which project slightly at its tip; third segment short, slender, moderately acute: dark fuscous, minutely sprinkled with lighter.

THORAX: Dull fuscous minutely sprinkled with whitish and darker, tips of tegulae rather lighter: a few very short hairs directed upwards and forwards on collar.

ABDOMEN: Rather shorter than distance from base of forewing to cleft, rather slender: dull dark fuscous, very finely sprinkled whitish and darker: first segment black on base of dorsum, whitish laterally and on distal half of dorsum, second segment with an ill-defined white lateral line which is still less evident on succeeding segments as a sublateral line edged above with blackish scales, tip of third segment slightly expanded on sides with looser scales mixed with whitish.

LEGS: Rather long and slender. [Foreleg: femur long, dark fuscous, lined whitish beneath; tibia short, about two-thirds of femur, distal half slightly expanded with scales, dark fuscous, lined white beneath; tarsus, first segment longer than 2-5 together, whitish broadly banded with dark fuscous at apex, second segment about two-fifths of first, whitish, its apical half dark fuscous, third segment dark fuscous, slightly paler towards base, fourth and fifth segments rather dark fuscous.]

MIDLEG: Tibia slightly longer than femur, rather reddish—fuscous broadly banded, darker in middle and at apex, which is very slightly dilated, bears an acuminate scale-tuft and emits a pair of short equal spurs only pointed at extreme tips; tarsus as in foreleg but second segment fully half as long as first.

HINDLEG: Femur fuscous, coarsely speckled darker; tibia blackish-fuscous with a slight reddish tinge, especially on basal half, where rather coarsely sprinkled whitish, an indefinitely-edged whitish band, sprinkled with ferruginous, just beyond proximal spurs, apical fifth scarcely dilated with scales which at extreme apex of tibia project rather roughly and are whitish-tipped, proximal spurs from about two-thirds of tibia, rather short, equal, filiform, blunt-tipped, with a few rough scales beneath, white, blackish at bases and with a blackish subapical band, distal spurs subequal, the inner spur very slightly longer than outer, similar to proximal spurs, outer spur as long as fourth tarsal segment; tarsus, first segment shorter than 2-5 together, basal two-fifths whitish minutely flecked ferruginous, otherwise blackish, segments 2-4 whitish broadly banded apically, with slightly ferruginous, fifth segment short, dull fuscous.

FOREWING: Cleft from about two-thirds, segments rather narrow: costa fairly straight to two-thirds of first segment, thence down curved to apex, which is produced, pointed, subfalcate, termen of first segment strongly incurved below apex, much less so on its lower half, lower angle well marked, obtuse, lower margin of first segment gently downcurved from base of cleft to lower angle, the first segment thus being broader outwardly than at its base, second segment also expanded outwardly and as broad as first, its upper margin slightly upcurved from base of cleft to upper angle, its termen oblique, slightly sinuous, excurved in middle, both angles well marked, dorsum of wing faintly excurved near base, strongly downcurved from below base of cleft to tornus: dull brown with a slight ferruginous tinge, minutely and inconspicuously sprinkled with whitish and darker fuscous scales, these latter tending to form short broad outwardly-oblique bars from dorsum on central third of wing and a slight elongate blotch in cell at one-third of wing; costal area between base and triangle almost blackish, cut (but not sharply) with whitish spots; a dull-fuscous-brown costal triangle before and well separated from cleft, its inner side (towards base of wing) not sharply defined, its outer side (towards termen) more defined and slightly concave, its apex terminating in a short black transverse streak-like spot rendered rather more conspicuous by an edging of white scales on either side; a few more white scales also between costal

triangle and base of cleft, which is narrowly edged with black around its base and on either side for about two-thirds of its length; first segment on its central third strongly suffused blackish-fuscous with a minute longitudinal costal patch of white scales, the basal edge of this suffusion indefinite, its terminal edge marked by a transverse line of ground-colour running obliquely inwards from costa to half-breadth of segment, thence very slightly excurved; second segment darker than first, its second and third fifths strongly suffused blackish-fuscous, less evident towards dorsum, this suffusion separated by a transverse paler line of ground-colour from the less strongly suffused fourth and fifth fifths of segment, the darker area and following paler line of second segment being in continuation of those of first segment: cilia on costa blackish-fuscous cut with dull-whitish rather broadly on anterior two-thirds of costal triangle and beyond triangle and more narrowly and faintly opposite paler line on first segment and before apex; on apex with a slight fuscous tuft; on termen of first segment greyish with a blackish basal-scale-line which is slightly but distinctly interrupted at half length of termen; on lower margin of first segment grey mixed with blackish but before lower angle blackish followed by whitish narrowly just before angle; on upper margin of second segment greyish intermixed with black, but blackish before upper angle, on which white; on termen of second segment at bases black, narrowly cut at one-third and two-thirds of termen, then whitish, forming a narrow line above black bases, then greyish; on dorsum whitish with a few scattered black scales and a moderate black scale-tooth at two-thirds, a narrow black wisp beneath cleft, on outer half of segment black narrowly cut with whitish.

HINDWING: Cleft from two-fifths and one-sixth, segments moderate; first segment elongate-spatulate, evenly broadened exteriorly, where about twice as broad as at base, costa strongly downcurved before apex so that the blunt tip of the segment is at half its breadth; second segment with its foremargin very slightly down-curved to acute tip, termen faintly concave, lower angle well-marked but not sharp, greatest breadth of segment (opposite lower angle) about $1\frac{1}{2}$ times that at base; third segment moderately broad, lower angle (at about three-fifths) scarcely evident; pale fuscous thickly overlaid with dark fuscous-brown; *Cilia* dark greyish, a costa with slightly paler patches at one-half of first segment and (less so and scarcely evident) just before apex on termen of first segment with slight subbasal blackish shade, also less evident around tip of second segment, on termen of second segment slightly paler at bases, on foremargin of third segment slightly paler, on dorsum basal half of cilia almost whitish on exterior half of segment, with scattered

black spatulate scales at bases of cilia on basal half of segment, at three-fifths a black triangular scale-tooth, its longest side towards base of wing but only extending two-thirds across cilia, two or three ferruginous-blackish scales at base of cilia beneath tip of third segment and a faint ferruginous shade in cilia on extreme tip of third segment. Type ♂, California, Half Moon Bay, 1-x—1937, W. H. Lange Coll., reared from larva on *Scrophularia californica*. The above description is from the type except for portion within square brackets, from a cotype, the type being defective in this respect (foreleg). The ♀ is similar to the ♂.

Cotypes 14 ♂ ♀ from Half Moon Bay (W. H. Lange: reared from *Antirrhinum*, *Castilleia latifolia* and *Scrophularia californica*); one ♂ (Fletcher Colln. 9199) from San Francisco (26-XI—1933, Keifer, also reared from *Scrophularia californica*), received from Mr. Keifer; ♂ ♀ from Carmel, California, April, A. H. Vachell, Coll., received from Mr. August Busck as "*acanthodactyla*".

The above series exhibits considerable variation in the ground-colour of the forewing, most of the Half Moon Bay specimens giving a naked-eye appearance of a dull smoky black; the San Francisco specimen is paler than the type, more of a dark smoky red-brown, whilst the two Carmel examples are still paler, of a light reddish-brown. These last mentioned are apparently part of the "ten specimens from Carmel, Calif., taken in April," referred to by Barnes and Lindsey (Cont. Nat. His. Lep. N. Amer., IV, 4, 322: 1921) under the name of *Platyptilia acanthodactyla* Hb., and their figure (Pl. 41, fig. 13) of one of these Carmel specimens agrees with my type of *crataea*, as regards shape of wings, markings and scale tufts. I note that in one of my Carmel specimens (Fletcher Colln. 9839) the lower portion of the outer edge of the costal triangle of forewing may be resolved into two dark antifissural dots, one above and the other slightly below the base of the cleft, which is interesting as showing the development of the normal *Platyptilia*-triangle from the antifissural dots of *Stenoptilia*; these two genera are very closely allied and it is a practical difficulty to draw any dividing line between them; some African species, *Platyptilia* by scale-tufts, show the antifissural dots and no costal triangle.

Platyptilia acanthodactyla Hb., has been recorded from North America by various authors but I refrain from giving a list of references, as in some cases it is uncertain what species was intended.‡

‡ Kearfott's figure (Bull. Amer. Mus. Nat. His. xxiii, pl. 8, fig. 16: 1907) of "*acanthodactyla*" has no resemblance to *acanthodactyla* Hb., and Fernald's record (Pteroph. N. Amer., p. 25: 1898) from the state of New York is unlikely to refer to *crataea*; but, so far as I know, the true *acanthodactyla* does not occur in N. America.

In comparison with *acanthodactyla*, *P. crataca* is more clumsily-built,* less neatly marked, and its male genitalia, although of the same general pattern, are on a larger scale, with much broader claspers (harpes, valvae) and the uncus more broadened toward its tip, which is decidedly acute (blunt-rounded in *acanthodactyla*). The wing-segments in *acanthodactyla* appear narrower, especially the second segment of hind-wing, and the cleft of forewing is deeper than in *crataca*, so that the small dark cilial wisp on dorsum of forewing is found outside of a line drawn vertically from base of cleft in *acanthodactyla*, but inside or occasionally on (never outside) this line in *crataca*. These two forms were probably derived originally from the same stock, but I can only consider them to be distinct species.

* Hence its name (Greek Krataios: potent, strong, robust).

